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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,853	08/01/2003	Thomas A. Gray	1244.42981X00	9176
20457 7590 07/30/2007 ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			EXAMINER WONG, LUT	
			ART UNIT 2129	PAPER NUMBER
			NOTIFICATION DATE 07/30/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

officeaction@antonelli.com  
dprater@antonelli.com  
tsampson@antonelli.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/631,853	<b>Applicant(s)</b> GRAY ET AL.	
	<b>Examiner</b> Lut Wong	<b>Art Unit</b> 2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 and 12-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)<br>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5-7-2007</u> . | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____<br>5) <input type="checkbox"/> Notice of Informal Patent Application<br>6) <input type="checkbox"/> Other: _____. |
|--|---|

### **DETAILED ACTION**

This office action is responsive to an AMENDMENT entered May 07, 2007 for the patent application 10/631853.

The First Office Action of Jan 08 2007 is fully incorporated into this Final Office Action by reference.

### ***Status of Claims***

Claims 1-10, 12-57 are pending. Claims 1, 7 have been amended. Claims 30-57 are new.

### **INFORMATION REQUIREMENT**

#### ***Requirement For Information - 37 C.F.R. § 1.105***

Applicant and Assignee of this application are required under 37 C.F.R. 1.105 to provide the following that the Examiner has determined is reasonably necessary to the examination of this application.

The Examiner's prior art search revealed a number of related references that maybe applied as 102(b) reference, which are not disclosed in the IDS. These references are:

1. Rui Gustavo Crespo, Luigi Logrippo, Tom Gray: Feature Execution Trees and Interactions. PDPTA 2002: 1230-1236
2. Mihai Barbuceanu, Tom Gray, Serge Mankovski: Coordinating with Obligations. Agents 1998: 62-69

**In response to this requirement, please provide answers to each of the following interrogatories eliciting factual information:**

1) Is there any other NPL or publications by the applicant that is related and not provided?

2) What reference(s) are used to draft the specification?

This request is made in view of the prosecution history with arguments made by Applicant with prior art provided and will assist in determining whether uncovered references might constitute prior art against specific claims pending in the application.

The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 C.F.R. 1.56. Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained will be accepted as a complete reply to the requirement for that item.

The fee and certification requirements of 37 C.F.R. 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 C.F.R. 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 C.F.R. 1.105 are subject to the fee and certification requirements of 37 C.F.R. 1.97.

This requirement is subject to the provisions of 37 C.F.R. 1.134, 1.135 and 1.136 and has a shortened statutory period of 2 months. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 C.F.R. 1.136(a).

### ***NOTICE OF REFERENCES CITED***

The prior art made of record, listed on the accompanying PTO 892, has not yet been relied upon but is considered pertinent to applicant's disclosure. Examiner is merely making this art of record.

1. Rui Gustavo Crespo, Luigi Logrippo, Tom Gray: Feature Execution Trees and Interactions. PDPTA 2002: 1230-1236
2. Mihai Barbuceanu, Tom Gray, Serge Mankovski: Coordinating with Obligations. Agents 1998: 62-69

### ***Specification***

The amendment filed is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: [0032],[0033],[0042]. The change of UK application to US application is considered as new matter. Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: The user 1 recited in [0066] is not shown. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 1-10, 12-57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

**Claims 1 and 30** recite "said parent node placing deontic modalities on the behavior of said child nodes such that successful implementation of said feature results from occurrence of said inherent action and composed success of the node actions of said children nodes". It is not clear what applicant is intended to claim. What do you mean

by "and composed success of the node actions of said children nodes"? The successful implementation or what?

**Claim 10** recites "In...said...the results...feature interactions". It is not clear what applicant is intended to claim. It is interpreted as claim 1 for the purpose of compact prosecution.

**Claim 39** recite "In a communication system..., the improvement comprising". It is not clear what applicant is intended to claim. It is interpreted as Jepson claim for the purpose of compact prosecution. See MPEP 2129 [R-3].

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

### ***Response to Arguments***

In re pg. 24-25, Applicant's arguments have been fully considered but they are not persuasive.

In response,

1. applicant uses such a long and verbose language in the claim such that the plain meaning is not readily clear to the Examiner. The interpretation was already made in light of the spec. The whole phrase "said parent node...composed success of the node actions of said children nodes" is summarized as "successful implementation means successful occurrence of actions".
2. Applicant does not address the previous rejection of claim 10, which is not fully responsive. Hence, the rejection of claim 10 is maintained.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1-10, 12-57 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Claims 1-10, 12-57 constitute software modules devoid of any apparent hardware, and therefore are computer programs e.g., functional descriptive material. Since the computer programs are not embodied on an appropriate computer-readable storage medium, they cannot be afforded patent eligibility.

***Response to Arguments***

Applicant's arguments have been fully considered but they are not persuasive.

In re pg. 25-27, applicant argues that the claim recite a system comprised of communication software entities which is a statutory subject matter.

In response, as admitted by applicant in the remark, such system is comprised of software. Hence, the whole "system" is a software system, which is software per se. Software is not one of the statutory categories, thus claims drawn to software per se is non-statutory.

***Claim Rejections - 35 USC § 102***



The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by admitted prior art (APA).**

**Claim 1** is rejected because claim 10 is interpreted as Jepson claim, which means the limitation claim 1 such as “tuple space”, “user agents”, “deontic task tree” are anticipated.

**Claim 30** is rejected for the same reason because claim 39 is interpreted as Jepson claim.

### ***Response to Arguments***

Applicant's arguments, with respect to the rejection(s) of claim(s) 1-10, 12-29 under 102(b) as anticipated by Buhr et al have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Mihai et al.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-9; 12-57 are rejected under 35 U.S.C. 103(a) as being obvious over Buhr et al ("Feature-Interaction Visualization and Resolution in an Agent Environment" FIW 1998), and in view of Mihai et al ("Coordinating with Obligations" 1997).**

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

**Claim 1**, Buhr use Use Case Maps (UCM) to provide system wide path structure (See e.g. Buhr section I). Buhr et al fails to particularly called for deontic tree. However, Mihai teaches dontic tree (See e.g. Mihai's Fig. 4. See also pg. 9-11 section 6). Mihai also teaches that the parent node placing deontic modalities on the behaviour of at least

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one of said child (See e.g. Mihai's section 6, especially on propagating constraint onto child nodes). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modified Buhr's with Mihai. One would have been motivated to do so because deontic tree is a tree structure of duties or obligations (As argued by the applicant in pg. 29 of the remark), which UCM lacks of. UCM only provide visual representation of structures. Hence, by replacing UCM with deontic tree, one can incorporate duties or obligations into the structure representation.

**Claims 2, 7, and 12:** note that Mihai teaches sequence operator (See e.g. Fig. 4).

**Claims 3-8, 13-16, 17-22** are rejected with the same reason as stated in the previous office action.

**Claims 9, 23-29** are rejected with the same reason as stated in the previous office action. In re pg. 33, applicant argues that the "scope" in the claim and the "scope" in Buhr et al are different. In response, EN:¶ 1 applies. the claim only recites "Scope, to name said assertions for subscription by a node". Hence, the comment field reads on the limitation.

**Claims 30-38, 40-57** are rejected for the same reason as claims 1-10,12-29 since applicant admits (pg. 33 of the remark) that the limitation is the same except the scope is boarder.

***Claim Rejections - 35 USC § 102***

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claim 39 is rejected under 35 U.S.C. 102(b) as being anticipated by Mihai et al (“Coordinating with Obligations” 1997).**

claim 39: Mihai anticipates that the improvement comprising placing deontic modalities on the behaviour of at least one of said child (See e.g. Mihai’s section 6, especially on propagating constraint onto child nodes).

### ***Examiner Note (EN)***

¶ 1 : The claims and only the claims form the metes and bounds of the invention.

Limitations appearing in the specification but not recited in the claim are not read into the claim. The Examiner has full latitude to interpret each claim in the broadest reasonable sense. There is no mention of these limitations in the claims and the specification is not the measure of the invention. Therefore, limitations contained therein can not be read into the claims for the purpose of avoiding the prior art; see In re Sprock, 55 CCPA 743, 386 F.2d 924, 155 USPQ 687 (1968).

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lut Wong whose telephone number is (571) 270-1123. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent David can be reached on (571) 272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

  
DAVID VINCENT  
SUPERVISORY PATENT EXAMINER

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Lut Wong/  
Patent Examiner, AU 2129